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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/760,387	01/12/2001	Michael Roger Cane	14409-9006-00	2484

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EXAMINER

SMITH, RUTH S

ART UNIT	PAPER NUMBER
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3737

DATE MAILED: 07/11/2003

12

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/760,387

Applicant(s)

CANE ET AL.

Examiner

Ruth S Smith

Art Unit

3737

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 May 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,5-35,42-50,52,58,59 and 64-67 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13-34 and 64-67 is/are allowed.
- 6) ☒ Claim(s) 1,5-8,11,12,35,42-50,52,58 and 59 is/are rejected.
- 7) ☒ Claim(s) 9 and 10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1,5,8,35,42-49,52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gutkowicz-Krusin et al in view of Chance. Gutkowicz-Krusin et al disclose non-invasive spectral imaging and characterization of skin tissue. The method includes illuminating an area of skin with light from three spectral bands and digitally imaging the area of skin with the remitted light. The digital images are comprised of digital signals whose values are functions of the skin condition. The images are processed and segmented by a processor. The processor outputs the condition of the skin by estimating values of skin parameters and comparing a weighted combination of these values to a threshold value. The threshold value may come from a training set of images that exemplify skin conditions. The apparatus of Gutkowicz-Krusin et al includes a light source, a photo-receptor, processing means, a filter wheel, polarization means, means to pass a control, signal to a display device, means to carry out illumination in various spectral bands, means to monitor remitted light intensity, means for providing a flexible light guide. Gutkowicz-Krusin et al fails to specifically disclose

Art Unit: 3737

the use of a reference sample that contains normal healthy tissue. It is old and well known in the art to use a reference sample that comprises a known condition such as that of normal healthy tissue. An example of such is seen in Chance. Chance discloses an optical method and apparatus for examining tissue where detected optical signals are compared against a known standard containing normal tissue in order to determine whether the tissue of interest includes normal tissue or unhealthy tissue. It would have been obvious to one skilled in the art to have modified Gutkowitz-Krusin et al such that the reference used to compare to the detected optical signals is that of normal healthy tissue as disclosed by Chance. Such a modification merely involves the selection of a known type of reference sample in the art. Gutkowitz-Krusin et al disclose measurement of many of the chromophores set forth in claim 5.

Claims 11, 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gutkowitz-Krusin et al in view of Chance as applied to claim 1 above, and further in view of Lemelson. It is a well known expedient in the art to use an endoscope to optically examine tissue. An example of such is seen in Lemelson. It would have been obvious to one skilled in the art to have modified Gutkowitz-Krusin et al such that the tissue is monitored using endoscopic means as such is a well known device for optically examining tissue.

Claims 6,7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gutkowitz-Krusin et al in view of Chance as applied to claim 1 above, and further in view of Thomas et al. Thomas et al disclose an optical diagnostic system including using mathematical models as reference samples. It would have been obvious to one skilled in the art to have modified Gutkowitz-Krusin et al such that the reference sample used is obtained from a mathematical model. The modification merely involves the substitution of one known type of reference sample for another.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gutkowitz-Krusin et al in view of Chance and Thomas et al as applied to claim 6 above,

Art Unit: 3737

and further in view of Lemelson. It is a well known expedient in the art to use an endoscope to optically examine tissue. An example of such is seen in Lemelson. It would have been obvious to one skilled in the art to have further modified Gutkowitz-Krusin et al such that the tissue is monitored using endoscopic means as such is a well known device for optically examining tissue.

Claims 58,59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gutkowitz-Krusin et al in view of Thomas et al. Gutkowitz-Krusin et al disclose non-invasive spectral imaging and characterization of skin tissue. The method includes illuminating an area of skin with light from three spectral bands and digitally imaging the area of skin with the remitted light. The digital images are comprised of digital signals whose values are functions of the skin condition. The images are processed and segmented by a processor. The processor outputs the condition of the skin by estimating values of skin parameters and comparing a weighted combination of these values to a threshold value. The threshold value may come from a training set of images that exemplify skin conditions. Gutkowitz-Krusin et al fails to specifically disclose the use of a reference sample determined from a mathematical model. Thomas et al disclose an optical diagnostic system including using mathematical models as reference samples. It would have been obvious to one skilled in the art to have modified Gutkowitz-Krusin et al such that the reference sample used is obtained from a mathematical model. The modification merely involves the substitution of one known type of reference sample for another.

***Allowable Subject Matter***

Claims 13-34, 64-67 are allowable over the prior art of record.

Claims 9,10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 3737

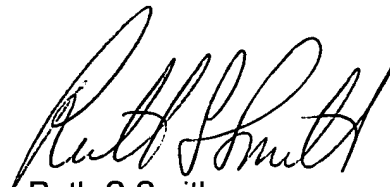
***Response to Arguments***

Applicant's arguments with respect to claims 1,5-8,11,12,35,42-50,52,58,59 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ruth S Smith whose telephone number is (703) 308-3063. The examiner can normally be reached on M-F 5:30 AM- 2:00 PM.

The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3590 for regular communications and (703) 308-0758 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0858.



Ruth S Smith  
Primary Examiner  
Art Unit 3737

RSS  
July 7, 2003